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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

INSTRUMENTAL DIAGNOSIS.

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RHINOSCOPY.

I. ORIGIN AND DEVELOPMENT OF THE ART.

Although sixty-three years have elapsed since Bozzini first proposed, by means of "certain simple apparatus" described in his work, *Der Lichtleiter*, published at Weimar, in 1807, to examine the "internal cavities and spaces in the living animal body," including therein the parts situated "behind the hanging palate," and several eminent observers, especially in Germany, have devoted much attention to the elucidation of the subject, and devising new or improved instruments for exploration, and removing difficulties in the way of the attainment of this art, rhinoscopy still has not yet been cultivated with that degree of interest and industry, nor been received with the same favor and encouragement, as its sister art, laryngoscopy.

Bozzini, a citizen of Frankfort-on-the-Maine, undoubtedly had a conception of the great wealth and importance of the then unknown, and even now the yet imperfectly developed field of instrumental diagnosis by illuminating apparatus as shown in *Der Lichtleiter* (light conductor). His views were first promulgated in 1804, and subsequently embodied and published in the work bearing the above title; but as in religion and politics, he met with the usual fate of the men occupying advanced posts in the march of human intellect, and in the development of science. Discouragement, contempt, and even proscription met him on every side, and from sources which, instead of welling up with envy and condemnation of his important observations, should have aided in swelling a tide that, in all probability, would have borne him, in the end, to the fame of a great inventor and a benefactor of humanity. We may truly say that in the apparatus of Bozzini all the more esential parts of the modern laryngoscope were present. It consisted of a tin, vase-shaped lantern, about thirteen inches high, three wide, and two deep. In the back wall of this box a small perforation was made, to which an eye-piece was fastened; in the front wall there was a larger perforation, intended for the attachment of exploring tubes of polished tin or silver, of different sizes, adapted to the requirements of the cavity to be examined. Between the perforations in the box of the lamp, a socket or metal tube was placed for supporting the candle, movable by a spring; the draft of air required to sustain the light was supplied through holes pierced in the bottom and top of the lantern, and the modern mirror had its counterpart in its concave and light-reflecting walls of polished tin.

In this connection, as concerns the attachments of the tubes, it is now required only to speak of that one intended to explore parts in the naso-pharyngeal cavity. It was formed of two small mirrors, mounted obliquely at the extremity of a metallic speculum, which was separated for the whole of its length by a partition; one of the mirrors was intended for illumination of the parts, and the other for receiving their image. Here then we have essentially a rhinoscope which, had it been adopted, would undoubtedly have led to further modification and improvement, and the *development* of rhinoscopy would not have been delayed until 1849. However, the instrument was dropped, and the inventor forgotten, and we hear nothing more of the subject until Baumes, of Lyons, in 1838, presented to the

medical society of that city a mirror the size of a two franc piece, which was intended to be used in inspecting the posterior nares and larynx, but the subject does not seem to have excited any interest, as no experiment or trials with the instrument were made, at least we can find no account of any such.

Avery, eight years later, in 1846, brought forward an apparatus in which he employed a large concave reflector, artificial light, and a laryngeal mirror, fixed in a speculum. His object was by this instrument to obtain an image either of the parts behind the palate or of the larynx, according as the mirror at the extremity of the speculum was turned upwards or downwards. We have no cases recorded either of the application of this instrument.

R. Wilde, of Dublin, whose large experience in aural diseases would have seemed naturally to suggest as a desideratum, some means of examining the pharyngeal orifices of the Eustachian tubes, also conceived of the possibility of such a consummation by means of mirrors.

The crowning work, however, was reserved for Professor J. N. Czermak, who, in 1848, after repeating and verifying the experiments and observations of Garcia, on the anatomy and physiology of the larynx, devoted himself to the study and practice of laryngoscopy in its application to clinical medicine, illuminated the naso-pharyngeal cavity more perfectly, thus excelling all his predecessors in obtaining perfect images of the parts therein contained, and finally laid the foundation of rhinal pathology as it now exists. The experiments and demonstrations of Czermak, and the results of his labors as published in German journals, and his work on the laryngoscope, have attracted general attention, and many physicians have since explored the same field with profitable results for practical medicines, whose bounds have been thereby widened; diseases hitherto incapable of being diagnosed by the means then possessed by the profession, have been made evident by the use of the rhinal mirror, and the application of means for their cure rendered more certain. The field that rhinoscopy has opened, it is true, is not a very spacious one, nor yet is one from which the fruits that do exist there can be procured without much and patient labor. On the contrary, the experience of observers skilled in this art all go to show what might have been *a priori*, inferred from the obstacles inherent in the peculiar anatomical arrangement of the naso-pharyngeal cavity; that it is very difficult to acquire sufficient manual dexterity to obtain all the advantages procurable from the employment of reflecting instruments. Conjoined with the obstacle presented by the very limited space in which the surgeon has to employ his mirrors, is the additional and often insuperable one, irritability of the soft palate, base of the tongue and palatine arches; and these structures are again connected in intimate sympathy with the larynx and stomach that the contact of his instruments with them induce coughing, and often vomiting, thus precluding, for the time being, that is, as long as this irritability and its associated excited actions last, the attainment of any useful results. It is, however, truly remarkable, surrounded by difficulties, as such investigations necessarily are, what gratifying success is procurable by the skilled hand, guided by the practiced eye, in certain cases, which, without the assistance rendered by rhinoscopic illumination, could not be met by any means known to surgical science, and it will be our agreeable duty to put before our readers illustrations of our assertion when we come to the pathology of the posterior nares and pharynx.

II. ANATOMY OF THE NASO-PHARYNGEAL CAVITY.

We should be prepared, in entering upon rhinoscopic studies, with a preliminary knowledge of the normal anatomy of the naso-pharyngeal cavity, and, with this view, it will not be out of place to refresh the memory by alluding, in a cursory manner, to the principal points of the structure and arrangement of the walls and constituent parts. This space is cubical in general outline, extending from a horizontal plane passing from the last molar teeth to the posterior pharyngeal wall, upwards to the base of the skull, and forwards to the nasal bones. The walls of the pharyngeal portion, on an average about two lines thick, consist of dense fibrous tissue, the pharyngeal aponeurosis attached by a tendinous expansion to the basilar and petrous processes of the occipital and temporal bones, by loose cellular annexions to the prevertebral fascia of the upper cervical vertebræ and to the muscles reposing upon them; laterally, cellular tissue connect them to the styloid process and the muscles emerging from it, and by muscular and fibrous tissue to the petrous por-

tions of the temporal bones, and to the internal pterygoid processes; anteriorly the walls are continuous with the margins of the posterior nares. The cavity is lined by mucous membrane, continuous above with the same tissue of the nares and Eustachian tube; it is prolonged below into the mucous coating of the mouth, œsophagus, and larynx. This membrane is thick where it is connected with the periosteum of the basilar process, but becomes thinner as it descends in the neighborhood of the posterior nares and Eustachian tubes. In the latter situations, also, are found numerous muciparous glands of the racemose variety, one-third to one line in diameter; a glandular mass from one to four lines thick extends between the orifice of the tubes. The color of the mucous membrane varies in the different situations, the upper portion being redder than the lower, presents no papillæ, and is covered above the margin of the velum with ciliated epithelium, while below this the epithelium is of the ordinary tesellated kind.

The whole length of this posterior wall of the pharynx is about four and a half inches, and its transverse diameter somewhat greater than its antero-posterior, the former measuring opposite the nares about two and a quarter to two and a half inches, and the latter about seven-tenths of an inch, the size of the cavity gradually increasing from above downwards to the hyoid bone, where it gains its greatest width, and then rapidly diminishes to its termination opposite the cricoid cartilage, its narrowest part.

Upon the lateral wall of the pharynx, about the level of and just behind the inferior turbinated bone are the Eustachian orifices marked by their well-defined oval margins. Behind these orifices the mucous membrane is broad, thick, and elevated, extending obliquely downward and outward, forming with the posterior pharyngeal wall a cleft called the sinus of Rosenmuller; these parts, from their relation with the Eustachian apertures, are important points to be remembered in introducing the Eustachian catheter.

The anterior portion of the naso-pharyngeal cavity constituting the nasal fossæ diminishes in width from below upwards, measuring upon the floor about three centimetres, and hardly eight millimetres at its highest point; the vertical distance between floor and roof posteriorly varies from one-half to one-and-a-half inches. The fossæ are bounded above and in front by the nasal bones, the cribriform lamella of the ethmoid, and the under surface of the body of the ethmoid bone, forming a roof sloping posteriorly from its highest point in front; laterally the walls are formed of the lachrymal, ethmoid, palate, inferior turbinated and superior maxilliary bones, projecting from this surface horizontally inward toward the septum are the three turbinate bones (sometimes four,) forming between them grooves called meatuses. The superior turbinated bone is the shortest and smallest of the three; beneath this is the superior meatus into which the posterior ethmoidal cells and sphenoid palatine foramen enter. More anteriorly, and below the middle turbinated is seen overhanging the middle meatus, which receives the orifices of the anterior ethmoidal cells and the maxillary sinus. The inferior turbinated is the largest of them all, and bounds the inferior meatus above, into which the inferior aperture of the nasal duct opens. The floor of the nasal fossæ is formed by the palate processes of the superior maxillary bone, and the horizontal process of the palate bone; it is concave from side to side, and slopes backward at an angle of 20° or thereabouts, with a horizontal plane.

Between the nasal roof and floor, in the median line, a cartilago-osseous partition extends, dividing the rhinal cavity into two chambers or fossæ; it is formed by a cartilaginous plate in front, the perpendicular plate of the ethmoid and the vomer, and in most cases does not occupy an exactly vertical position, but inclines to one side or the other, generally to the left.

All these parts are lined by mucous membranes, abundantly filled with racemose glands, and closely connected with perichondrium over which it lies, that covering the turbinated bone, particularly the inferior, being much more vascular and thicker than elsewhere. On the septum it is thick and spongy, but that lining the floor, roof and meatuses is thinner and paler.

The floor of the nasal cavities is continued posteriorly with the velum-palati, or soft palate, a membrano-muscular veil forming a movable boundary between the buccal and pharyngeal cavities; it extends backward, in the median line in a pointed process, and the uvula laterally is bounded by a concave border, sweeping around into and continuous with the lateral pharyngeal walls.

III.—APPARATUS FOR RHINOSCOPIC EXAMINATION.

The optical principle upon which rhinoscopic apparatus is based is a simple one. It may be formularized in a few words—that for an object to become visible, it is only necessary for the eye to receive rays of light reflected by it. As these rays proceed always in straight lines, any reflection that might take place from the posterior nares, will be rectangular to the line of vision, and would, therefore, never reach the eye, unless some means were adopted to alter their course, and give them a direction parallel with the optic axis, and thus enable the eye to receive them. Such means are afforded by a small mirror held obliquely in the throat, with its reflecting surface upwards in such a position that the image of the parts above may be recieved, and the rays from this latter may proceed in the direction of the antero-posterior diameter of the buccal cavity. This would indeed be a very simple rhinoscope, but is useless practically to the physician for the ordinary amount of light obtainable in this way is not sufficient to illuminate the nares so as to give distinct images. We are compelled, therefore, to have recourse to some further means of illumination, and the method adopted for this purpose is to employ a concave mirror which, receiving the rays from a bright sun, or some sort of lamp, conveys them upon the throat mirror, the latter throws the additional light upon the parts in the pharyngo-nasal cavity, which, after being brightly illuminated, return the rays and form in the small mirror a clear and distinct image, which may then be inspected with ease.

There must be a sufficient amount of space in the throat in which to manipulate the mirror; and, in general, we find that this can be gained with the simple mechanical means at our disposal—the tongue depressor and palate hook—the former being indispensable, as few persons have sufficient control over the movements of the tongue to keep it sufficiently low as not to touch the mirror, while the hook can in most cases be dispensed with—at least I have made the most of my successful examinations without it, and have rarely found it to aid me in any case.

We shall now proceed to consider the apparatus for rhinoscopic exploration in the order in which they have been named.

THROAT MIRRORS.

These mirrors are made of different materials, sizes, shape and form. Those commonly employed are of ordinary glass, with the usual amalgam backing, forming a beautiful reflecting surface when well made, and possessing durability and finish which have secured them the preference of every other sort. The reflecting surface cannot, however, be made so perfectly mirror-like as that of steel highly polished, and, indeed, the latter would be much preferable could the objection to it, which more than counterbalance its advantages, be removed; the objections are that the metal tarnishes easily, becomes scratched in cleaning, becomes discolored by frequent warming, and altogether difficult to keep in good working order. It has been attempted, with some success, to remove some of these drawbacks by silver-plating the steel. I am working now with a set of four mirrors made in this manner eight years ago, and they are still in good order, the slight hair-like scratches upon their surfaces not pratically interfering with the clearness of their image. Of whatever material the mirror is made, it is important to have it of sufficient thickness to retain heat after being warmed long enough to get a good view of the image before its surface becomes clouded by the deposition upon it of the aqueous vapor exhaled in respiration, when its removal and reheating becomes again indispensable. As to the size of the mirror to be used, that will depend upon the amount of space in the pharynx that one has to work in, and this varies in different persons. Of course, the larger the mirror that can be employed the better, both on account of the size and illumination of the field visible. The practitioner will find the three mirrors shown in the drawing (Fig. 1) of the natural size, the most advantageous. They are of four, six, and eight-tenths of an inch in diameter—one even an inch in diameter may in rare cases be employed. In my own case, for example, I can easily usethis size, but in the majority of cases eight-tenths will be the largest that can be employed.

The shape of the mirror is of much less importance, the round ones shown in the cut will, on the whole, answer perhaps better than any other; but when the throat is narrowed by enlarged tonsils, the oval ones might find a useful application; the square mirror, with rounded corners, may also be successfully worked.

Though the shape of the mirror is of little mo-

Fig. 1—Rhinoscopic Mirrors.

ment, not so the form or rather the manner in which it is attached to its stem. I have found those given in the cut, drawn by myself, from the set I employ, answer my purpose best; the stem is solidly soldered to the back of the mirror at an angle of 130°. Semeleder advises those set at or near a right angle, but the oblique form enables one to inspect the whole pharyngo-nasal cavity, by elevating or depressing the handle, or changing the position of the mirror, which inspection, from a careful consideration of the anatomy of the parts, could not be attained with the rectangular instrument. I have, however, used the latter with satisfaction in observing the superior surface of the velum, inferior meatuses and lower portion of the septum narium.

PALATE HOOK AND TONGUE DEPRESSOR.

Several devices have been suggested for obtaining greater amplitude of the space between the velum and posterior wall of the pharynx, by drawing forward the uvula and velum. As we have already observed, the cases requiring this are altogether exceptional in order to make a good rhinoscopic exploration, but that there are such there is no doubt, but our experience is that an elongated uvula is more often inconvenient by hanging down in front of the mirror, and cutting off a view of the image, than want of space. Türck proposed to remove these difficulties by adopting the use of the little contrivance shown in the annexed cut (Fig. 2), consisting of a small

Fig. 2—Türck's Palate Noose.

silver tube, about an inch long, perforated near one extremity by a small hole, and of sufficient diameter to permit the passage of a doubled thread, the "bight" of which is drawn through the small hole at one end of the tube, while the free ends depend from the other. In employing this noose, the loop of the thread is hitched over the uvula, the tube is then shoved down upon it, and the free extremities of the thread are drawn forward from the mouth until sufficient traction is made upon the velum, when they are to be attached to a band passing around the head.

Czermark recommended for the same purpose a hook made of German silver, about four inches long, of which the stem, gradually widening from the handle is turned up at the point about a quarter of an inch. He used hooks of several sizes, different shapes and variously angulated at the point, sometimes, even where it was important or necessary to inspect this posterior surface of the velum, the point was fenestrated.

Neither of these plans have succeeded in accomplishing the object in view, and indeed, from the irritability of the points about the throat it is difficult to devise any instrument that will possess, in its application, advantages more than counterbalancing its inconvenience. I have, however, in the little hook shown in Fig. 3., combined, all the advantages procurable from such an instrument. It is made of light German silver wire in the form shown. The points of the hook are intended to catch on the posterior surface of the velum on either side of the uvula, the latter fleshy process being sustained in the small circular bend of wire at the base projecting horizontally, and doubled, as it were, out of the way upon the anterior surface of the velum. The hook allows of the most thorough examination of the posterior surface of the soft palate as the fine wire covers but little of the surface. The handle of the hook is shaped into an oval, with which the elongated uvula may be removed to one side or the other, as circumstances require, and held against the palate. The wire permits the hook to be bent into any desirable shape; for instance, if the surgeon wishes to use th hand holding the hook for som

Fig. 3—Author's Palate Hook.

other purpose, he has only to expand the two wires, forming the handle into an oval, and bend this over the nose, when the palate will be securely held forwards. This plan of course will be restricted to complex and difficult cases of rhinoscopic manipulation.

With whatever justice and convenience palate hooks may be dispensed with, the same is not true of the tongue depressor, which, for reasons we have already assigned, become indispensable. By its use we gain in vertical space, and at the same time control the base of the tongue, preventing its rising against the mirror. There are several forms of the depressor recommended, but we prefer the one shown in the annexed sketch, designed by Dr. J. SOLIS COHEN, of Philadelphia. It is manufactured of metal or hard rubber, and presents the shape shown; the vertical arm is well bent upon the lingual, so as to be entirely out of the way of the hands in manipulating with instruments. Türck employed an instrument for the same purpose, consisting of several blades fitting to ore handle, and capable of being either lengthened or shortened at option, so that it may be adapted to the throats of persons of different ages.

Fig. 4—COHEN'S TONGUE DEPRESSOR.

Czermak's spatula is constructed of a blade with a spoon-shaped concavity to receive the superior surface of the tongue, and extends well back to the root of the tongue.

[*To be continued*].

THE PHYSIOLOGICAL ACTION OF PROTOXIDE OF NITROGEN.

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It has been a disputed point among scientific men, ever since the protoxide of nitrogen came into general use as an anæsthetic, whether its action depends upon oxidation or whether the carbonic acid generated either by the ordinary disintegration of tissue, or, by super oxydation, produces the anæsthesia. Eminent gentlemen in this country and Europe have maintained (and with some plausibility) that carbonic acid, by its action upon the nerve centres, produces the anæsthesia, arriving at this conclusion from the fact that evidences of asphyxia, are in some cases, so manifest, while others have held to the theory of oxidation.

Having administered this gas to many thousands of persons, having inhaled it in my own person, hundreds of times during as many successive days, and having carefully watched its effects upon the system under the greatest variety of circumstances and conditions, I have maintained that its action must depend upon oxidation and that the indications of asphyxia (slight in ordinary cases) are merely an incidental effect rather than the main cause of the anæsthesia.

The following experiments, it seems to me, clearly establish this theory:

Exp. 1. Take two jars of equal size filled with lime water, pass a definite amount of air, as it comes from the lungs, through one solution, and it is rendered turbid; pass an equal amount of nitrous oxide, as it escapes from the lungs, through the other solution, and it is also rendered turbid, but to a greater degree than the first, indicating the presence of carbonic acid in greater quantity.

Exp. 2. Breathe through a tube into a solution of litmus blue, and it is changed to red. It will take, we will say 15 seconds, to effect the change (the time depending upon the strength and quantity of the solution). Now breathe nitrous oxide gas through another solution of the same strength and quantity, and we shall notice the change of color in from 10 to 12 seconds, indicating the elimination of carbonic acid to a greater extent than the normal amount, while breathing the gas, as in the first experiment.

Exp. 3. Take a full inspiration of air, retain it in the lungs for one minute, and there are no indications of anæsthesia. Now try the same experiment with the gas, and the anæsthetic effect is manifest almost to insensibility while there are no indications of asphyxia.

We have thus demonstrated, by the first two experiments, that while breathing protoxide of nitrogen, an increased amount of carbonic acid is exhaled, and as this excess *must* be produced by oxidation, we *reasonably* infer that the action of the protoxide is oxidation; and the third experiment furnishes corroborative testimony, though of a negative

character; for if the retention of carbonic acid causes the anæsthesia, why are there not some indications when air is retained in the lungs?

If we inhale pure nitrogen, we still exhale carbonic acid for a time, owing to the union of the oxygen previously introduced into the system, with the carbon and hydrogen of the tissues, but the amount is sensibly diminished. Now, this diminished amount of carbonic acid might have been anticipated, since we have not furnished sufficient oxygen to produce the normal amount. But on the other hand, when we find an increased amount of carbonic acid we infer a corresponding increase of oxidation.

But it is objected that nitrous oxide is not a mixture of gases like the air, but a chemical compound, and therefore it does not act by oxidation. Let us see. Exp. 4. Plunge a lighted taper into the gas, and it burns with greatly increased brilliancy; the heated elements of the taper presenting a stronger affinity for the oxygen than the nitrogen does, take it and form the new combinations, carbonic acid and water. This fact shows the affinity of the elements composing nitrous oxide to be feeble.

Reasoning, now, from analogy, we might be led to infer that similar results would follow the introduction of the gas into the system, and such we find to be the case. The oxygen of the gas, by its stronger affinity, seizes upon the carbon and hydrogen of the tissues, with the same results of combination as in the case of the taper; in other words, we have superoxidation.

But it is objected that *pure oxygen* exerts a less powerful action upon the system than the gas which is two-thirds nitrogen. The answer is simply, that the blood absorbs but a small percentage of oxygen, so that when it is introduced into the lungs it finds its way into the system slowly, while nitrous oxide is rapidly absorbed and conveyed to the tissues to be given up for combination.

Exp. 5. If one takes a full inhalation of the gas, he instantly feels a thrill throughout the entire system. This is the incipient stage of anæsthesia, and the rapidity of its action is another proof of the theory of oxidation, for if these sensations were caused by the accumulation of carbonic acid, we should hardly anticipate such a result in the course of a few seconds.

It is still further objected that the asphyxiated appearance of persons under its influence, indicating a superabundance of carbonic acid in the system, suggests, at least, that it is the cause of the anæsthesia. The third, fourth, and fifth experiments furnish proof of the absurdity of this conclusion.

Moreover, the principal evidence of asphyxia ordinarily manifested is the cyanosed tint of the lips, which is, in part, produced by pressure in holding them tightly upon the inhaling tube, while in certain cases, in which these evidences are more striking, there is a cessation of breathing caused by the tongue falling back upon the epiglottis; by removing this obstruction, and allowing the patient a breath of air, the symptoms of asphyxia disappear. If the inhalations be prolonged to extreme limits, we shall also notice the asphyxiated appearance owing to the accumulation of carbonic acid.

The above indications furnish the main argument in favor of the carbonic acid theory. That there accumulates in the system a larger than the normal amount of carbonic acid is evident, and this is entirely consistent with the theory of oxidation, but this accumulation is not in sufficient amount in ordinary cases to attract attention, certainly not enough to produce profound insensibility. Moreover, the effects of nitrous oxide upon the system are not such as we should anticipate, were they caused by the action of carbonic acid for its depressing in its influence. Even if a slight impediment is offered to its elimination from the lungs, "a feeling of discomfort and depression increasing with the duration of the interruption is speedily felt."

Now, while inhaling the nitrous oxide, although there is an increase of carbonic acid in the system, yet, if it be in sufficient amount to produce anæsthesia, how shall we explain the immediate reaction, and the agreeable sensations while inhaling, as well as for some time subsequent.

In the ordinary use of stimulants, there follows "a period of depression corresponding to the exaltation of the functions excited," yet persons who have submitted to the influence of nitrous oxide give no idications of this character. On the contrary, there ordinarily follows a period of exhilaration, just what might be anticipated from an excess of oxygen.

The system resumes its normal condition as soon as the oxygen has been disposed of by

union, and the carbonic acid and other products of oxidation eliminated, which process is very rapid—while chloroform, ether, alcohol, and other narcotics and stimulants linger in the system much longer, and, by their prolonged action upon the nerve-centres, produce their depressing effects and obstruct oxidation.

But the wonderful power of the nitrous oxide yet remains to be explained.

It is a well-known principle of chemistry, that elements in the nascent state, just liberated from union, exhibit remarkable characteristics and properties.

Nitrogen and hydrogen, for example, placed in a jar together, manifest no affinity for each other, and cannot be induced to unite even by the application of the most intense heat—but let them come together just at the moment of liberation from other compounds, and they combine with the utmost avidity. This is the precise condition in which the oxygen of the protoxide is found, as it enters into combination with the tissues of the body—just liberated from its union with nitrogen, it is in its nascent state—the active condition, and thus it exhibits its extraordinary powers of oxidation.

I have in this brief and cursory manner endeavored to prove, (1) that persons breathing protoxide of nitrogen exhale a larger amount of carbonic than while breathing common air: and (2) that its action is essentially oxidation, and that the excess of carbonic acid in the system is merely incidental, and in no wise sufficient to produce anæsthesia; and, (3) that its inoffensive effects are due to its action as an oxydizer; and (4) that no subsequent depression follows, but rather a rapid reaction; because, acting by oxidation, the products of its combinations are speedily eliminated from the system; and, (5) that its remarkably powerful action is due to its entering into new combinations, just at the moment of its liberation, when in its nascent state.

I shall reserve for a future article what I had intended to say of its uses and abuses, and close by expressing my profound conviction that the pure protoxide of nitrogen, administered within proper limits, is harmless in its action, while if made from contaminated materials; if generated at too high a temperature; if used immediately after it is made; if the impurities ordinarily found in it be not removed; if inhaled in sufficient quantity to produce profound anæsthesia, after being prepared for a few days, or if the administration of the *pure gas* be persisted in beyond *certain limits* it is capable of an immense amount of mischief. At the same time I would, express the earnest desire that a free and full discussion of the subject may afford a better knowledge of its physiological action and increase its value as an agent for the relief of human suffering.

Hospital Reports.

UNIVERSITY OF PENNSYLVANIA.

May 25th, 1870.

Surgical Clinic of Prof. D. Hayes Agnew, M. D.

(REPORTED BY DR. DE F. WILLARD.)

I have now to present to your notice a series of cases of irregularity in contractions of muscles, due either to congenital deformity or to heal-nutrition, or to deficiency of nerve power now existing in the individual. All of these are exceedingly interesting to the practitioner, since they will be constantly brought to his attention.

The first case which I shall bring before you is an instance of the disease known as

Torticollis or Wry Neck.

The patient is a white female child of 4 years of age, and as you observe her you will see that the head is drawn downward toward the right shoulder, and as I attempt to raise it to its normal position, a prominence rises in the skin upon that side of the neck. As I follow this prominence with my fingers, I find it firm and tense, and from its direction and attachments, I recognize it as the sterno-cleido-mastoid muscle; yet when I more carefully trace it, I find that all the muscle is not thus tense and contracted, but only the clavicular portion, for you will remember that this muscle arises from two heads, and, in fact, it was described by the older anatomists as two muscles, the sterno-mastoid and the claviculo-mastoid.

This case, therefore, clearly proves that these portions are capable of acting entirely distinct and independent of each other. In the present instance, this seems to be the only muscle implicated, but in extreme cases, the platysma, trapezius, scaleni and even the splenius may be affected. This complaint, when of long standing, gives a peculiar expression to the face, and necessitates a stiff, awkward movement of the whole body whenever the sufferer desires to see an object which is not directly in front. The duration will depend upon the cause. The causes are numerous, as rheumatism, which may give but temporary difficulty and speedily pass away or it may proceed from disease of the cervical vertebræ of the cervical glands, or from paralysis.

In the case before us which is of five weeks' standing, I observe that the child is pale and anæmic, and upon looking more closely I notice certain irregular movements of the arms, which I learn, by interrogating the mother, have existed for some time, as she now remembers, although she had scarcely given them notice before. These movements are twitching in their character, and follow each other quite rapidly, though they are slight.

I therefore infer that this child is suffering from a commencing attack of chorea, and that this wryneck is but one of the manifestations originating from the same cause, whatever that may be, and it is unquestionably due in a great measure to her debilitated condition, thus giving a deficient or a disturbed nerve-supply to the muscles, now destroying the regularity or equilibrium of action of opposing muscles, giving thus *unequal* or uncertain contractions.

Consequently it is manifestly a case not requiring operative interference, but constitutional treatment and general hygienic measures. I shall then order that this child be given ½ gtt. liq. potass. arsen., with gtt. iij. of tinct. fer. chlor., and a ʒ. ol. morrh., t. d. At the same time allowing it to spend much of its time in the open air, and to partake of a generous diet, into which milk shall largely enter.

The skin to be kept in activity by baths, frictions, etc.

Upon the side of the neck will also have a stimulating liniment well rubbed, twice in the twenty-four hours, trusting more to general remedies, however, than to local.

Deformity of the Foot.

The next case to be presented will fall, like the last, under the head of disturbance of nerve-power, and I bring forward a youth, 16 years of age, who is suffering from a deformity of the foot.

He first noticed this difficulty some eight months since, there being no assignable cause, save that his health had been impaired by an attack of illness.

You will notice that the right foot is markedly abducted, being drawn outward from its normal position to such an extent that the tarsus is placed at an obtuse angle with the tibia and fibula, thus presenting the deformity known as the talipes valgus. Upon examination I find the peronei muscles to be the ones chiefly at fault, they being quite firmly contracted, the antagonistic muscles, being, of course, relaxed; and you will clearly understand this deformity if you will recall for a moment the course of the peroneus longus, as it passes from the fibular side of the foot, to be inserted into the outer side of the metatarsal bone of the great toe.

There being no assignable cause for this difficulty, and as it is rare to see such a disease originate at his age, it being much more common in childhood, it is therefore evident that the seat of the lesion is in the attenuated condition of the nerve-supply to these muscles, and to unequal distribution of this supply.

The supply of the peroneus longus and brevis, is, as you remember, from the musculo-cutaneous branch of the peroneal, while the peroneus tertius and tibialis anticus are supplied by the anterior tibial.

The deformity not being yet so marked as to require division of the contracted tendons, we will endeavor to correct the malposition by appropriate mechanical means, and by constitutional remedies.

A shoe will be constructed, such as is now made by all surgical instrument makers, which will give constant support to the ankle, and at the same time exert a gentle pressure, in the way of abduction, which we trust will gradually bring this foot into good position, without operation, at least for the present.

Infantile Paralysis—Club-foot.

At the same time, as of paramount importance, we will give him tonics of iron, arsenic, etc., to bring his digestion into better action.

I have also another case presenting the same condition, but in a different form. This babe, nine months of age, as you will observe, has its thumb drawn firmly in toward the palm, and, upon looking at the opposite hand, we find the same condition existing there, and we are told by the mother that the child was born in this condition, and cannot abduct them. I immediately looked to ascertain whether there be other deformities upon its person, and discovered not only that both feet are very flat, but each tarsus is flexed upon the bones of the leg, by the contraction of the tibialis ant., ext. long. pol., ext, long. digit., and perhaps the peroneus tertius, which is in reality but a slip of the latter muscle, thus fixing the feet in the position known as *talipes calcaneus*, and rendering the heel the most dependent portion of the foot.

I have also here a child suffering from the deformity known as varus, affecting both feet, and thus you have presented to you at one time all but one of the chief varieties of club-foot, the remaining one being talipes equinus, in which case the patient walks upon the phalanges of the foot, the heel being drawn up by the contraction of the gastrocnemius and soleus.

I need not dwell long upon club-foot, save to say that it is congenital in the majority of cases, being, found as early as the third or fourth month of fœtal life; but it may occur at any time during childhood as a result of what is known as "infantile paralysis," or "paralysis of children, combined with fatty degeneration of the muscles," in which case the club-foot is produced slowly and gradually as the child walks about with these relaxed muscles, and is occasioned thus almost mechanically.

These cases of infantile paralysis are usually sud-

den in their onset, often no assignable cause being discovered, and the loss of power may be confined to one muscle, or may involve all the extremities, in which latter case, however, some portions of the body usually regain the original power.

The groups of muscles most frequently affected by paralysis, are the muscles of the front of the leg, forming the extensors of the toes and the flexors of the foot, next in frequency we find the extensors and supinators of the hand, and thirdly, the extensors of the leg and the muscles of the foot. When a single muscle is affected, the extensor, long. digit. pedis, is the most frequent, and the tibiralis, ant., next.

If this paralysis be permanent, and the nutrition of the whole limb is affected, the bones are retarded in their growth, rendering the limb shorter than its fellow; the muscles waste and the temperature is lowered, and thus the foot, being given over to those muscles which are unaffected, the deformity becomes worse and worse, if no preventive measures are employed, giving us in the end a well marked case of any of the varities of club foot, equino varus being, however, the most common. There are two forms of this paralysis, the one called by M. Duchenne "the temporary paralysis of infancy," which always terminates by a rapid recovery, while the other variety is of long duration, and ends in atrophy or fatty degeneration of muscles, and later, in deformity due to disturbance of the equilibrium of the muscular forces.

These two varieties are described together by Barthez and Rilliet, under the name of "essential paralysis," and it is probable that they are really but differences in degree rather than in kind, still it is possible that one may be due to mere reflex irritation, whilst the more persistent form is dependent on organic changes in the cord. Exactly what that change in the cord is, is still unsettled, even if it really exist, and it rests mainly upon the evidence of M. Roger, that there is a degeneration of the anterior part of the lateral column.

Heine, Radcliff and Brown-Séquard, are of the opinion that it consists in a congestion of the cord followed by a watery effusion, and subsequent atrophy.

Galvanism is an important assistant in the diagnosis of this disease from those cases of cerebral paralysis which affect the lower extremeties since in the latter case electro-muscular contractility remains, while in "essential paralysis," it is lost after a few weeks, either partially or wholly, but at times the most powerful induced currents (Faradisation) will have no effect, while a direct galvanic current of low tension, slowly interrupted, will act energetically.

It is a curious fact, that in proportion to the recovery of susceptibility to an induced current and of voluntary fervor, the direct galvanic current loses its effect on these muscles.

When deformity has occurred in consequence of atrophic paralysis, it is important not to confound it with congenital deformity, or with deformity with spasm.

In paralytic talipes equinus, the deformity arises from the action of the gastrocnemius, whilst the tibialis and flexors are either paralyzed or act feebly, and these latter muscles will be found not responding to galvanism.

The most frequent deformities are equinus, and equino-varus, and there is one deformity which occasionally occurs, which is said by Laborde to occur in no other way, being never found in congenital cases.

It consists in an elevation of the dorsum of the foot, from paralysis of the gastrocnemii, with an exaggeration of the plantar arch, from the action of the peroneus longus or the flexors of the toes.

Equino-valgus, calcaneus or calcaneo-valgus and varus also occur. Bony deformity occurs secondarily, not primarily, as in congenital cases, and is only found when the foot has been neglected and allowed to remain too long in its false position.

In congenital cases, and also in these, there is great mobility of the parts, so that the foot may be twisted to such an extent that its plantar surface may even look upward when the patient is walking.

This mobility, not only of the ankle-joint, but of the articulations of the tarsus, is due primarily to the relaxation of the muscles rather than of the ligaments themselves, but as the bones are thus constantly allowed to fall out of position, the ligaments gradually relax, and as the patient walks, are stretched in the direction of extension, and relaxed in that of flexion, so that the bones of the tarsus at last become distorted—twisted upon each other,—occupying false positions, and are at times even marked by irregular extensions, thus sometimes preventing return to a normal position even after an operation.

In the treatment of the cases now before us, we will endeavor to accomplish a cure of the deformity by mechanical means, leaving tenotomy to be performed in the future, should these means fail, though they will often be sufficient in themselves, so that tenotomy should always be deferred until deemed necessary. In cases arising from infantile paralysis, faradisation and mild gymnastic exercises are often of great benefit in restoring the lost power to certain muscles.

Suitable orthopædical apparatus will be constructed for these children, and they will be directed to return at some future time to report upon the progress of their respective cases.

In the case of the child with such marked adduction of the thumbs, an apparatus must be devised

which will slowly but steadily, without exerting dangerous pressure upon the soft parts, draw these thumbs into their normal position.

CLINIC OF DR. J. E. GARRETSON.

May 25th.

Hare-Lip.

The deformity of the child now presented, is so familiar to the class that I need not stop to discuss it minutely; suffice to say, that all cases may be put down under two heads, simple and compound. A simple cleft is a single cleft without complications; the compound clefts have a variety of forms, which may be studied with more profit by us in the future, as the cases present.

The case before us is one of the simple variety—presenting a single break in the continuity of the lip, immediately to the left of the median line. It is a simple V break; dog-eared at the free surface, being, indeed, the analogue of the hare's lip from whence its name is derived.

In considering a case of this kind, three questions alone are involved: 1st. The time of life best suited to an operation. 2d. The condition of the patient. 3d. The mode of operation.

While much discussion has been elicited concerning the first, yet I think it may be assumed as settled that one time of life is nearly as good as another. The second question, however, demands serious consideration. Let me quote here some expressions I have published upon the subject.

"Every man, woman and child in the world has a certain amount of physique, and no more. The experience and physiological knowledge of the surgeon enable him to weigh this life force. He must decide then, imprimis, whether or not his patient is equal in force to the demands of an operation. He must consider the present condition of his patient, for the possession of a capable physique does not imply that the life force has not, like the tide, its ebb and flow.

"A child may have proper developments, yet at the very time when it is presented for operation it may labor under temporary depression, the result of functional disturbances, as for example, one just convalescent from cholera infantum, or from one of the exanthemata, who would certainly not be in as favorable a condition for any operation as one who has not thus suffered. True, it may have borne well the demands made upon it up to the present time, and came out of the ordeal looking strong, but then it is the last feather that bends the camel; the system that endured bravely the one demand, may not have a residue of force or limit that will just then meet another. Give such a system time; get it back to the condition in which the first demand found it, and you then have it certainly capable of the same resistance and of the same endurance. Again, a patient may not be up to the required tone, and yet circumstances render a speedy operation desirable. We may assist nature. Exercise, fresh air, and proper food, can do much. The last may imply that the milk of the mother of the child in nursing be exchanged for that of a hired nurse. Who has not examined the milk of a mother or wet-nurse, and found it greatly deficient in some important constituent? I have seen babes growing visibly weaker and more puny day by day; I have seen physicians baffled because they could find no one portion of the economy less healthy than another. I have seen the microscopist take the milk on which such a babe has been feeding, and, looking at it through his glasses, find it half made up of cholesterin. A change of milk has effected immediate change in the child. A child may have fibrinous blood to excess, tending to undue inflammatory action, or the lymph which such blood would exude might be so corpuscular in character that the wound would at once take on suppurative action. Either condition would be adverse to an operation; yet we have antiphlogistics for the one and tonics for the other.

"A seemingly strong child may be in a typhoid state, and a blushing cheek may be the effect of hectic or excitement; typhoid blood has, comparatively no fibrin. If you were to perform an operation upon such a patient, you would be sure to have a failure for your pains. I have had under my care patients in just such a typhoid state, where the pulse would be bounding and the face always flushed; such a quick pulse and flush is, however, the result of the deficiency of the blood. A child may be cutting its teeth, yet this did not necessarily contra-indicate an operation; for it is not every child that has convulsions and kindred troubles with the cutting of its teeth; many a child goes through the whole process of dentition without cause upon which to ground a sob. If a child is brought to the surgeon, cutting teeth, with an operation for hare-lip to be performed, and there is associated with the dentition, no general, or special or local disturbance why should he not proceed, cæteris paribus, at once to operate? I can see, and I have up to this time met with no objections for so doing."

Having then decided that an operation is justifiable, the next step is to decide upon the operation itself.

A basis operation might best be represented by a simple V-cleft, having the mesian-line of the lip as its centre;—the indication being to return such lip to a normal contour.

In looking at the normal lip we find no break in its continuity, and we find at the centre a projection of more or less graceful curves. Above this, and bounded laterally by the alæ nasi, we notice a fossa—the fossa labialis, and from this fossa the lip

spreads itself, out on either side to be lost on the cheek.

In order to fulfil the required indications we must, therefore, do three things. Reunite the break in the continuity—create a mesial projection and give to the centre a fossa, and, for the accomplishment of our object we must carefully view our case from a surgico-artistic standpoint.

To simply remove the paring and cleft by uniting its surfaces would be easy of accomplishment, were it the sole indication, but were we to attempt this merely we should defeat our second and third indications. Since the fibre of the orbicularis associated with the margin of the lip would be put upon the stretch, while all the deeper portions would be comparatively relaxed, thus rendering our desired fossa a promontory, and our soft median swell a stretched mucous membrane.

Since the result of our purpose depends upon the manner in which we pare the edges, we will therefore use the ellipse, instead of a simple V cut, since it has been proven to fulfil all three of these indications, *i. e.* it, not only allows us to unite the edges, but since the centre of the ellipse is its greatest diameter, and this centre is the centre of the lip, it follows, that when we bring together this most widely separated part, it necessarily projects the most yielding surface, which surface is the free symphysis of the lip. Moreover, in the third place, the greatest stretch on the muscle will be in the site of the myrti-form fossa, with a necessary relaxation above and below, which will give a result such as we wish, *i. e.*, a fossa above and a projection at the free mesial line.

There is one precaution which should never be overlooked, since by its neglect the cutaneous portion of the wound may gap, and this is that the paring should invariably be V shaped, as reference is had to the base of the V looking toward the throat. Since this will allow for excess in the contraction of the skin over that of the mucous membrane.

Various methods of retaining the parts in position have been proposed, of which the one most commonly used is the hare-lip pin and figure of 8 suture, but this is objectionable, since we are liable to have four ugly scars remaining from the compression of the ligatures against the pins.

As a substitute for this dressing some surgeons use a ring of india-rubber stretched over the pins; the advantage claimed being that its elasticity accommodates itself to the inflammatory or serous distension of the part.

Others use simply silver-wire sutures, or interrupted sutures of silk from the under surface of the lip. The method which I prefer, however, is to take several extremely delicate silver-wires, the fewer the better, and pass them in such a manner that they will emerge at lines which shall very nearly correspond with the commissure of the lip. Next, take a strip of common sheet lead, and cutting it to an appropriate size, make in it as many little holes as you have wires on either side; then pass one end of the wires through these holes, and compress upon them a McLean button, *i, e.*, a simple shot. Then accurately approximate the wound, and fix the wires upon the opposite in the same manner as before. Should the point of wound between the pieces of lead tend to bulge forward, place upon it a compress, and secure by a bandage. The advantages of this dressing are that it is entirely unirritating, and may be retained for weeks, if necessary, while at the same time the wound is always easily examined, and lastly, and most important, perhaps, no scars from the wires will remain after their removal.

Where the patient has arrived at such age as to lend us his coöperation, we may use Dewar's compressor, which is an excellent dressing, since we have no pins or sutures to leave behind their unsightly scars.

Ligatures should always be avoided upon the coronary artery, if possible, since they interfere with prompt union, and compression of the facial will soon cause all hemorrhage to cease.

There is a feature associated with the formation of the linear cicatrix, and the notch which so commonly deforms hare-lip patients, that I do not remember to have ever seen alluded to, but which is of such consequence as to merit the closest scrutiny. Is it the fault of nature or of the surgeon, that the operation gives any cicatrix at all? Cicatricial tissue—tissue inodulaire, as Delpech more happily terms it—means accidental tissue—new tissues formed from granulations, and is certainly not found in the union by first intention of Hunter, or the immediate union of Paget.

So little inodular tissue would be formed in a true union by first intention, that it would leave in a few weeks no observable scar, as we so often see in slight cuts upon our bodies, with razor, etc.

I have removed tumors of the size of a hen's egg, and in a few weeks after been unable to detect the the line of the incision, and Mr. Paget who had the opportunity of dissecting a large wound made three weeks previously, says that it was impossible to distinguish the relation which these parts held to each other from that which naturally exists in subcutaneous fat and fat beneath it. "In short," he says, "there was union by first intention; it was immediate, at once in respect of the absence of any intermediate substance placed between the wounded surfaces, and in respect of the speed with which it was accomplished."

When a wound heals by granulation, there is necessarily an exudation and organization of lymph—thus giving us a cicatrix, or when in excess, a notch,

My explanation of this notch is not such as is usually given, but I consider it as due to the contraction of the fibrous tissue of which the cicatrix is composed, and therefore, when the amount of tissue is great, the notch will be larger.

Our great object, consequently, is to obtain as near an approach to union by first intention as possible, but this is best accomplished by a very careful approximation of parts, artery to artery, vein to vein, thus hoping to effect rapid inoculation and quick adhesion.

Adhesive strips may be used to assist in the support of the wound, or silk gauze and collodion, which are to be preferred, since the wound is thus exposed to inspection.

(Dr. G. then proceeded to perform the operation, using the precautions as above explained. Strips of lead, however, not being convenient, the ordinary hare-lip pin andsuture were used. W.)

Medical Societies.

CINCINNATI ACADEMY OF MEDICINE.

May, 1870.

By C. D. Palmer, M. D., Prof. Obstetrics, Medical College of Ohio.

(Reported by J. W. Hadlock, M. D.)

Puerperal Convulsions—Two Cases—Commentary.

Case 1. Mrs. S., aet 20, primipara, large, strong, plethoric, was taken with convulsions at full term of utero-gestation, labor commencing during the evening of Februry 27th, 1870. There was slight œdematous condition of lower extremities. Had complained much of headache during the day and early evening, prior to labor.

Delivery took place naturally at 3 A. M., 28th, previons to which time, she had some six or seven well-marked puerperal convulsions.

Patient was first seen by Dr. Goode in the latter part of the second stage of labor, who had her bled to the extent of pint and a half, and ordered a solution of bromide of potassium.

The convulsions continuing after delivery with equal force and frequency, by request of Dr. Goode, I saw the patient at 2 P. M. She was then breathing heavily and irregularly, with full, slow, but regular pulse. There was marked venous congestion of face, pupils partially contracted, scarcely responding to light, and total unconsciousness.

Bleeding to the extent of pint was repeated, and a cathartic of calomel grs. x, and croton oil gt. ij, was with difficulty given. Cold effusions to head.

The number and severity of the convulsions diminished after this bleeding, and there was a partial return to consciousness by the evening, when the cathartic freely acted, and urine was voided. (No made of the latter.) The bromide was resumed. By evening, there were no further convulsions. Patient fully recovered. Child living.

Case II. At 5½ o'clock, Thursday, P. M., 24th inst., I was called in haste to see Mrs D——. On arriving at the house, I learned that she had just come out of a second convulsion. She was a woman less than twenty-five, of light hair, skin, very fleshy, and decidedly plethoric. On inquiry and examination, I ascertained that patient was about eight and a half months advanced in her first pregnancy. The lower extremities and the face were in a state of marked œdema, having been manifest since the first of the month. Within four days previous to the attack, she had suffered greatly from headache, gastric irritability. The bowels had been moved regularly and freely, daily, but the excretion of urine had been scant.

She had partaken of strawberries twice during the day, and vomited the same before the first convulsion. Between the first and second convulsion, consciousness was partially restored. Each convulsion lasted perhaps two minutes.

The pulse was found to be full, hard, regular, about 85. No uterine action was perceptible to the hand applied over the abdomen, but the os had dilated to the size of a silver half dollar, and was high within the pelvis. Chloroform was now sparingly administered.

Within 15 minutes, a third convulsion in length and severity as the first two, occurred, but less consciousness following, pupils responding to light feebly.

Patient bled one pint; chloroform more freely and continuously given; a cathartic of calomel grs. x., and croton oil, gtt. iij. given. Cold applications to head; sinapisms to lower extremities. Bladder evacuated with catheter, urine albuminous.

Between this time now (6 p. m.) and 11 P. M., there was a recurrence of two convulsions, with no consciousness between. Great heat of head; throbbing of carotids; turgescence and livid state of face; stertorous breathing. Each of these convulsions were preceeded by much tossing and restlessness of patient.

The cathartic had acted freely by 9 P. M. The chloroform was given freely and continuously, without producing complete anæsthesia, to maintain as far as possible, quietness of patient, to ward off any coming attack of convulsions, to mitigate them, should they occur.

The fourth convulsion was due to a discontinuance of the chloroform, while an additional quantity was sent for, that on hand having been exhausted.

After the fifth convulsion she was bled again a full pint, with most decided relief to the cerebral symptoms, the condition of breathing and state of pulse.

Dilatation of os was now in progress. It pro-

ceeded favorably; the second stage of labor was short, and delivery accomplished at 1 A. M. (25); child living.

But one convulsion occurred during the progress of labor, then followed a comatose state, for few hours; then on awakening to consciousness towards morning, a few words of conversation; another convulsion at 7 A. M., but shorter and lighter than any.

It was thought well at this time, to suspend the chloroform, and administer bromide of potassium. Thirty grains were given every three hours, and lemonade freely allowed, the cathartic being used, Oj. of urine was drawn off, which proved to be decidedly albuminous, being tested with both heat and nitric acid.

After the administration of the bromide, there was no recurrence of convulsions, and convalescence was rapid. On Saturday night (29th) the secretion of milk was established.

This case was seen twice by Prof. Wright, at 10½ P. M. (24th), and 10 A. M. (25th,) who concurred in plan of treatment pursued.

Dr. McMechan gave important service also in the administration of chloroform, and in delivery during my absence.

I present a history of these two cases in a hasty and incomplete manner, because of the peculiar interest of puerperal convulsions to every physician, and to express my convictions as to the special application and power of a few agents in the treatment of this disease.

1. Blood-letting is not a fashionable practice today, but fashionable or not, it seems to me its power is so great in the successful management of certain forms of puerperal convulsions, that he who neglects it loses a powerful weapon for good. Not by any means does every case require loss of blood. In many of our American women, pale, anæmic and delicate, it is inadmissible. We take it that a patient with this disease is to be bled, not because she has puerperal convulsions, but because there is some special indication as plethora, as violent vascular action, pointing to its necessity. Although the pregnant woman is hydræmic, she may in a certain sense be plethoric, that is, have an excess of blood—really a serious plethora. To alter the state of the blood, to diminish the mass which is passing through the distended blood vessels, these are the objects of its employment.

In both of these cases its influence was marked, and that soon; and it contributed more to the favorable result than any other agent used, chloroform not excepted. Here we had plethoric women of full habit to deal with, the convulsions being of the apoplectic kind, with great cerebral congestion and strong tendency to effusions.

In case 1, prior to the second bleeding, the character of the pulse, breathing, the unconscious state, the contracted pupil, with failure to respond to light, made us think effusion had already taken place. Such were opinions of Dr. Goode, and also Dr. Mascroft who saw the case once, and myself.

(2) *Chloroform*, unless there is a decided contra-indication to its use, should be given *continuously*, and freely enough to maintain a constant effect. In language of THOMAS, "The continued use of chloroform is not near so likely to kill as a return of convulsion."

In case 2, it acted best after venesection; in case 1, so great was the cerebral congestion and coma that it was thought inadvisable. SIMPSON says, chloroform produces in this disease a transient diabetus mellitus.

The internal use of *bromide of potassium* is indicated in all forms of disease. Experience proves it to be an efficient remedy, after the stomach and bowels have been evacuated. It is a remedy unlike some others; it can hardly do any harm. Its action is not simply upon the brain and nervous system, but is a diuretic.

(4) *Opium* was *contra-indicated* in both these cases, as I think it is, in the apoplectic form of the disease. It does good in certain cases after venesection, acting best in anemic, nervous women, with but little cerebral congestion.

"Let me warn you," says ELLIOTT, "to be careful in the use of opium when there is deficient action of kidneys, and when there is accumulation of used in blood. There are cases in which opium is treacherous, and in which many lives have been lost by the injudicious use of this remedy. Besides the ease with which it is administered by the hypodermic syringe, is a temptation towards the most dangerous way of prescribing it, because it at once passes beyond our control, and again, it might be immediately absorbed by some venous radicle; in any case there is a certainty that its absorption will be prompt, and then, if unfavorable symptoms follow, there is far less opportunity of overcoming them, than there would have been had it been administered by the stomach, when its evils may be largely prevented, by emesis."

WEST VIRGINIA MEDICAL SOCIETY.

The Medical Society of the State of West Virginia met at Parkersburg on the 1st inst.

At 2 o'clock P. M., Dr. E. A. HILDRETH, of Wheeling, 1st Vice President (in the absence of the President,) called the Society to order.

Dr. Hupp, of Wheeling, read a letter from Dr. J. S. Vanvoorhis, delegate from the State Medical Society of Pennsylvania, regretting his inability to be present, which was ordered to be spread upon the minutes.

Dr. Roemer, of Charleston, moved that this So-

ciety entertain no petition for membership from localities where a Society exists, except the application comes *through* the local Society. Referred to a committee to report to-morrow.

Dr. Safford read a very elaborate report upon the Climatology and Epidemics of Wood county, which on motion of Dr. Todd, was referred to the Committee on Publication.

Dr. W. H. Sharp read an able report on new remedies. The uses of the hydrate of chloral, referred to by him, called forth much discussion, during which Dr. Hupp, of Wheeling, read his experience in the use of chloral hydrate, especially in puerperal insanity. The report, together with Dr. Hupp's paper, was referred to the appropriate committee for publication in the next volume of Transactions.

Dr. Coles in the chair. Dr. Hildreth read a very exhaustive report on the climatology and epidemics of Ohio county, which after commendatory remarks from the members, on motion of Dr. Todd, was referred to the Committee on Publication.

Dr. Frissell, of Wheeling, read an elaborate paper on *stone* in the *bladder*, which gave the history of eight cases on which he had operated successfully in the vicinity of Wheeling, during the last 35 years. The youngest case operated upon was 2 years old, and the oldest, 70 years of age. The paper, after eliciting encomiums from many members, was referred for publication.

By request Dr. Todd gave his experience in suffering with a mulberry calculus which he passed while using water from the Parkersburg wells, and highly commended these waters as a remedial agent.

Dr. Allen reported an interesting case of stone in the bladder, in which he made a post mortem examination, and exhibited the calculus.

Dr. Roemer reported two cases of urinary calculus successfully treated by lithotomy.

Dr. Berkabile read Dr. Wiesel's report on medical and surgical appliances; then proceeded to report on the same subject as chairman, which papers were referred to the Publishing Committee.

A lengthy and very interesting paper by Dr. I. T. Nicklin, of Middlebourne, on "*Cephalic Version*," was read by Dr. Cummins. This process has been practiced by Dr. Nicklin for the last thirty years, and in its use he claims *priority* to all others in this country. The paper was referred to Publication Committee.

The election of officers resulted in the choice of the following gentlemen, viz:

President—Dr. Wm. J. Bland, of Weston.

First Vice President—Dr. Wm. Coles, of Parkersburg.

Second Vice President—Dr. Roemer, of Charleston.

Third Vice President—Dr. R. H. Cummins, of Wheeling.

Secretary—Dr. James M. Lazzell, of Fairmount.

Treasurer—Dr. John C. Hupp, Wheeling.

After a very pleasant and harmonious session, the Society adjourned to meet in Martinsburg on the first Wednesday of June, 1871.

INDIANA STATE MEDICAL SOCIETY.

This organization commenced its twentieth annual session in the lecture room of the Indiana Medical College, corner of Delaware and Court street, Indianapolis, at 9 o'clock, May 17.

Dr. George Sutton, of Aurora, elected President at the May session of last year, took the chair, and called the Society to order.

The following papers were reported ready for presentation when called for:

By Dr. Hobbs, on Surgical Operations in the Removal of Bones of the Skull.

By Dr. S. E. Wright, of Indianapolis, on Diseases of the Ear.

By Dr. Waterman, on the Relapse of Fevers.

By Dr. S. E. Houghton, of Richmond, on Dislocations of the Hip.

By Dr. H. V. Passage, of Pennsylvania, on Reduction of Dislocations of the Hip Joint.

By Dr. Kersey, (in pursuance of a direction by a vote of the Wayne County Medical Society), on the Condition of the Medical Staff in the United States Navy.

The Jay County Medical Society transmitted, through Secretary Woolen, resolutions of respect to the memory of Dr. J. S. Bobbs, of Indianapolis.

On motion, Dr. Weist read his written report referred to and described above. It embodies a resolution that a committee be appointed by this Society, to petition the State Legislature to enact a law providing for a State Board of Public Charities, similar to those now existing in Massachusetts, Ohio, Illinois, and other States, and to take such other steps as they may deem necessary to secure such legislation.

A paper on the Pathognomic Signs of Nephritis, was read by Dr. J. A. Comingore, of Indianapolis.

Dr. G. W. Mears, of the same city, submitted a well prepared essay on Puerperal Hemorrhage.

Dr. Clark, from the Committee on Nomination of Officers for the ensuing year, made the following report:

President—Dr. R. N. Tood, of Indianapolis.

Vice President—Dr. J. N. Rosenthal, of Fort Wayne.

Secretary—Dr. G. V. Woolen, of Indianapolis.

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Treasurer—Dr. James H. Woodburn, of Indianapolis.

Librarian—Dr. A. W. Davis, of Indianapolis.

The report was adopted.

A number of other valuable papers were presented by various members, and the Society then adjourned to meet the third Tuesday in June, 1871.

EDITORIAL DEPARTMENT.

PERISCOPE.

Chloral in Eclampsia.

In the Obstetrical Society of London, recently, the Baron PAUL VON SEYDEWITZ, M. D., read a paper on the Chloral Treatment of Eclampsia. After a brief account of the therapeutical uses of chloral, and of the opinions entertained by various writers as to its properties, the author detailed two cases of eclampsia in which it had been used:

I. A woman, æt. 35, was admitted into the Bürger Hospital, at Bâle, in November, 1869, suffering from endocarditis subsequent to delivery. Some time afterwards, violent epileptic fits came on, and recurred very frequently. A variety of treatment was adopted without success. Eventually, chloral was administered. The fits were at once arrested, and did not recur, and the patient was discharged cured.

II. A boy, 12½ years of age, a patient in the same hospital (the details of whose case had been furnished by Dr. R. Massini of Bâle), was the subject of Bright's disease, complicated with mitral insufficiency and uræmia. Violent eclampsia came on, as many as twelve convulsive attacks occurring between 11 P. M. and 9 A. M., on the following morning. Chloroform inhalations were used without checking the convulsions. In the intervals between the attacks, he was perfectly unconscious and unable to swallow. Chloral was then injected hypodermically, with the effect of greatly diminishing the strength and frequency of the fits. After two more injections they entirely ceased; and the patient made a good recovery.

Insanity.

The case of McFarland, in New York, is likely to become a *cause célebre* in the annals of phychological as well as of criminal literature. The most detailed evidence was that of Dr. W. A. Hammond. According to the *New York Times*, he took extraordinary means to determine accurately the state of the prisoner's mind, and decribed the instruments which he used.

"He ascertained the presence of congestion of the brain by the ophthalmoscope; measured the strength of his nerves by the dynamograph; timed his pulse, which he found raging from 104 to 124; and, by speaking of Richardson and showing McFarland photographs of his wife, made the poor man almost frantic with grief; and then, grasping his hand, found his pulse to be 142. At this time, McFarland was almost uncontrollable, and exhibited all the symptoms of acute mania. On April 20th, an afternoon immediately after the adjournment of the court, he found the pulse 132. This accelerated pulse and the sleeplessness of the defendant were, he said, unmistakable indications of congestion of the brain. In defining the various forms of insanity, Dr. Hammond said that eccentric persons are more liable to mental aberration than others. He also stated the case of a man occupying a prominent position in the community, who was a victim of volitional insanity, and who would commit suicide were it not for the disgrace which it would bring upon his family; stating that to his knowledge there were a number of such cases in the community.

Reviews and Book Notices.

NOTES ON BOOKS.

Dr. Arthur Leared's little work "On the Causes and Treatment of Imperfect Digestion" has sold in England over 5,000 copies. This is a large sale for a medical work.

Dr. O. Liebreich, the beneficent discoverer of the anæsthetic properties by hydrate of chloral, has just published a short biographical notice of the late Professor Werther, of Konigsburg, Prussia, and at that time of his death, one of the editors of *Erdmann's Journal*.

The New York *Nation* has the following remarks on a late article in a popular monthly: "Tobaccophagoi and Tobaccophagism" is by Dr. John C. Draper, and is like most similar essays in that it will please everybody who hates tobacco, and will amuse everybody who loves that herb. Of course it is made clear once again that no one but a desperado would use tobacco except as a medicine. As for gentlemen who have for any length of time been smoking, or snuffing, or chewing tobacco, they simply are alive in spite of themselves. Perhaps, however, they have cancer; or they suffer under a thickening of the Schneiderian membrane of the nose; or they have married late in life and become paralytic; or cannibal islanders have refused their flesh on account of its being saturated with nicotine. Physicians who are opposed to the use of tobacco, might do worse, one would say, than to deny themselves paper and ink for a while, and set themselves to discovering an antidote to the ill effects of the plant.

MEDICAL AND SURGICAL REPORTER

PHILADELPHIA, JULY 2, 1870.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

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VOLUME XXIII—A RETROSPECT.

This is the first number of the *Twenty-third volume* of the MEDICAL AND SURGICAL REPORTER in its weekly form. Nearly twelve years ago we made the experiment of issuing a weekly medical journal in Philadelphia, although warned by many previous failures, that it was a serious undertaking. A previous editorial experience, however, of eight years had made us acquainted with the medical profession and its wants—and we entered upon the work, confident that we would be sustained. *And we have not been mistaken.* Through all the vicissitudes of the past twelve years the profession has not faltered in sustaining our enterprise, although the great changes that have taken place in the country during those years, have made sad inroads in our mail-books. Death, removal, migration, abandonment of the profession, have taken many a name from our lists—only however to be replaced by new names; for the compensation has been even more than complete. A glance at our mail-books that were opened with great expectations ten years ago, on the eve of the gigantic struggle through which our country has passed, gives one a painful and realizing sense of what we have passed through during that time. "Gone to the war"—"Died on the battle-field"—"Entered army, and present location not known"—"Abandoned the profession"—"Gone west"—"Gone south"—are records that frequently meet the eye. It was a hard, a very hard struggle to keep the REPORTER alive in those days that tried men's souls—our readers can never realize how hard, unless placed in the same circumstances that we have been. But while others faltered, and failed to sustain a literature for the profession, the twenty-two volumes of the REPORTER that have spanned those chaotic years, show that we have endeavored to do our duty. Those who were cowards then can bravely put the harness on in these piping times of peace—as witness the new enterprises that are springing up on every hand.

Twenty years ago this month we essayed our first editorial paragraph, and began a career, which, for good or for evil, has continued thus far. For twenty years we have labored earnestly, and with some success—as THIRTY VOLUMES of medical literature, all, or a portion of which can be found in the libraries of hundreds and thousands of physicians in all

sections of the country, stand ready to attest—to advance the interests of the medical profession, and elevate the standard of medical knowledge. Far from accomplishing all that we desired, no one can deny that we have done something to promote the interests of medicine in this country. Through a most trying time of our country's history we have maintained a literature for the profession when the field was abandoned by many. These twenty years of our connection with the MEDICAL AND SURGICAL REPORTER have witnessed a sad mortality in enterprises of a like character. Indeed, we seem to stand in a graveyard with the tombs of departed medical journals on all sides of us? On another occasion we propose to collate all the advents and obituaries of medical journals that have been made in the REPORTER during our editorial career, since July, 1850. The record will be an instructive and interesting one—yes, and a frightful one!

In addition to maintaining a weekly medical literature, we have successfully established a HALF-YEARLY COMPENDIUM of medical literature, an undertaking which others had vainly sought to accomplish. To this we have added a third publication—the PHYSICIAN'S DAILY POCKET RECORD—thus giving the medical man, at a very moderate cost, a trio of publications which are all calculated to supply his every-day wants.

In these publications it has been our aim to supply the wants of the *greatest number* of the profession. Our course has been independent and American, and so it will continue to be. Wherever we can find anything that in our opinion will interest and instruct our readers, no matter in what locality, we shall make use of it. In this connection we will reiterate what we have often said on previous occasions, that *we particularly value practical communications from country physicians*, and believe that they are calculated to add much valuable material to the sum of our medical knowledge.

Twenty years ago the writer carried the REPORTER "mail" to the postoffice under his arm, the number of subscribers being about a hundred. Twelve years ago, in the first days of the WEEKLY, he carried it himself to the postoffice in a bundle, riding on an omnibus, or street car. Now, it requires two days' steady labor of two persons, accustomed to the work, after the wrappers are all written, to pack them for the porter to take to the postoffice in a furniture car. The REPORTER now goes to every State and Territory of the Union, and to many foreign countries. It never had a larger list of paying subscribers than now, and its growth was never before as steady, healthy and substantial as at present, and we know of no reason why we should not expect a continuance of this prosperity. Let our readers bear in mind that *our prosperity is their interest*, and so do all they can to increase our circulation and opportunities of advancing, in every way, the interests of medicine.

MEDICAL EDUCATION.

The convention of delegates from Medical Colleges, which met in Washington, in the latter part of April, have published their proceedings.

Of course nothing was done but to advocate excellent measures which nobody intends to carry into effect. We cannot but regret the unworthy position in which the schools of this city placed themselves.

The discussion, says the official report, "developed the fact that a majority of the representatives from Colleges in the West and Southwest had come with definite instructions in favor of advancement and final action, while the representatives from both the schools in Philadelphia, and several others, disclaimed having any instructions, and that, whatever might be done, would have to be submitted to the Faculties of the schools for ratification."

Certainly it is a disgraceful reflection on the most prominent schools in the United States that they are the most unwilling to co-operate in the elevation of professional education. It is of small account to boast of ancient renown, high-standing, strict etiquette, and rigid ethics, when *solid instruction* is disregarded.

The Convention adjourned *sine die*. And dying, sang the following swan's song, in the shape of sonorous resolutions:

Resolved, 1*st*. That a committee of nine be appointed, whose duty it shall be to communicate with the Faculties of all the regular Medical Colleges in the United States, with the view to ascertain how many, and which may be willing to become members of an *Association of Medical Colleges*, having for its prime object the improvement of medical education.

2*d*. That the Chairman of said Committee be instructed, as soon as he shall have received affirmative replies from ten (?) regular Colleges, to inform each Faculty so consenting, of the fact, and to request that each Faculty elect one or more delegates, to convene on the Friday before the day appointed for the meeting of the American Medical Association,

in 1871, and at the place of meeting chosen by that body—said delegates to be fully authorized to pledge their respective Faculties to whatever definite plan of improvement in medical education may be adopted by the body in Convention.

3d. That it is hereby recommended that said delegates organize themselves, in behalf of their respective institutions, into a permanent *Association of Medical Colleges* for the above mentioned object, and with the view of coöperating with the American Medical Association and the profession at large, in efforts to accomplish so desirable and end.

4th. That Prof. N. S. Davis, the Chairman of the Committee appointed by the Convention of 1867, to communicate with the Medical Colleges on the same subject, be made the Chairman of this Committee, and that the Committee be authorized to fill any vacancies which may occur in its ranks.

The committee appointed includes the following gentlemen: Prof. N. S. Davis, of Chicago, Chairman; Prof. Samuel Logan, of New Orleans; Prof. A. Hammer, of St. Louis; Prof. T. Parvin, of Louisville; Prof. S. D. Gross, of Philadelphia; Prof. A. C. Post, of New York; Prof. Geo. C. Shattuck, of Boston; Prof. Geo. C. Blackman, of Cincinnati; Prof. A. P. Talley, of Charleston.

We have some encouragement in view of the honorable names upon this list to hope that the victims of ignorance over knowledge, and stupidity over intelligence, although obvious at this time, is not going to be lasting.

Notes and Comments.

Nickel Plating.

We have been shown some handsome specimens of nickel plating, from the Star Nickel Plating Works of this city. As the plating is not altered by exposure to moisture, most acids, or acrid discharges, it is admirably adapted for plating surgical and obstetrical forceps, sounds, etc.

Correspondence.

DOMESTIC.

Pennsylvania State Medical Society.—Letter from Prof Meigs.

EDS. MED. AND SURG. REPORTER:

GENTLEMEN—Permit me to call your attention to the fact that in the issue of your journal for June 18th, you have published what purports to be the Address of Welcome which I had the honor to deliver before the Medical Society of the State of Pennsylvania, on the occasion of its recent meeting in this city. In reality you have published the first four and the last two paragraphs only of the address. The slightest examination of the fourth and fifth paragraphs, as they stand in your columns, is sufficient to show that they have no connection with each other. In the address, as originally written and read before the society, fifteen pages of manuscript intervene between them. In these pages I have briefly referred to the manner in which the public has, for so long a time, persisted in misunderstanding its relations to the medical profession. Having, on various occasions, attended the meetings of the State Society, and observing how much time was often spent in the discussion of purely ethical questions to the exclusion of subjects of scientific interest, I ventured to urge upon the members of the society the propriety of refusing to entertain the vexed question of the status of the Woman's Medical College and its graduates, believing that the discussion of this subject would not only prove a cause of discord, but would seriously abridge the scientific labors of the convention. This supposition was subsequently verified by the fact that the papers of Dr. Curwen and others, prepared at the expense of much time and research, were, for want of time, passed over without even being read.

After the reading of my address at the opening of the session of the Society, one of the reporters of *The Press* requested the manuscript for publication. This request was granted, with the distinct understanding that the address should be published in full, and the manuscript returned without mutilation. In both these particulars the agreement was broken—the first four pages and the last page and a half being published connectedly, to the entire exclusion of all the rest, and in such a manner as to lead to the inference that the paragraphs published constituted the whole of the address. By copying these paragraphs from *The Press* of June 9th, you have, though unwittingly, fallen into the error of presenting to your readers a very small part, for the whole of my address.

Permit me to call your attention to another error. In your account of the exhibition given at the Jefferson Medical College, you say that "the introductory and explanatory remarks were made by Prof. J. Aitken Meigs, the exhibition being under the management of Drs. J. Gibbons Hunt and W. W. Keen." The committee of reception, knowing that I possessed a superior gas-microscope, and had been employing it to illustrate my course of lectures on physiology in the Jefferson College, during the past winter, asked me to give an exhibition of its powers. This I consented to do, and requested my friends, Drs. Hunt and Keen, to aid me with their presence, and any specimens which they deemed suitable for the occasion. Dr. Keen was present, and exhibited and explained several very beautiful specimens, illustrating the intricate anatomy of the brain, spinal cord, kidney, intestine, &c. Dr. Hunt, however, being confined to his bed with an attack

of malarial fever, did not participate in the exhibition. This fact I announced at the time, and took the opportunity to award to him publicly, and to my friend, Mr. Oscar Knipe, the praise justly due them for their intelligent efforts to perfect the stereoptician for educational purposes.

By giving this communication a place in the next number of your Journal, you will oblige, very truly, your obedient servant,

JAS. AITKEN MEIGS, M. D.

Philadelphia, No. 423 S. Broad Street, June 20th, 1870.

[In cheerfully giving place to the above communication from Prof. MEIGS, we have simply to say that we requested the Permanent Secretary of the State Medical Society to prepare for us a full report of the proceedings, and published the report as he furnished it. The unfairness of the abstract which the Secretary had the misfortune to adopt,—not, of course from any unworthy motive,—is made very evident by Prof. MEIGS' letter, and we regret exceedingly that we have unwittingly aided in the dissemination of a paper which to our mind, one of the grossest outrages on a man's rights, that even the licentious press of our day has recently been guilty. Immediately on our attention being called to the error—as was done by Dr. MEIGS in a gentlemanly manner in person—we offered, as the best amends we could make for the injustice done him, to reproduce the paper entire from the disfigured manuscript returned to him from the *Press* office.—EDS. MED. AND SURG. REPORTER.]

A Little Experience with Chloral Hydrate.

EDS. MED. & SURG. REPORTER:

Under the above heading, I read a communication from Dr. H. A. SPENCER, page 404 of your excellent journal, of May 14, and as he desires it, I will hasten to give him, as well as others, the benefit of my experience of the remedy in question.

The subject of my first trial is a lady, who has been the unfortunate victim of the most agonizing paroxysms of neuralgia of the head and other parts of the body, as well as severe attacks of *sciatica*. I have tried successively the best known remedies for neuralgia, with only temporary relief, and have often been compelled to put the patient under the influence of chloroform during her attacks of hemicrania. I resolved to give the chloral hydrate a trial, and I am happy to state that I met with complete success. She was suffering with one of her accustomed attacks, when I administered grs.x chloral hydrate, and in an hour she was *free from pain*. This was at 10 o'clock, P. M. I left the patient quietly sleeping, and directed the attendant to give her grs. x, if the pain should return. At 1, A. M., feeling some pain, the second dose was given, after which she slept till morning. I called at 10, A. M., the next morning and found her suffering with intense neuralgic pain in the head. I administered grs.x, waited an hour, but no cessation of pain. I repeated the dose with no better success. I then gave sixteen grains, and in an hour the pain was gone and patient slept till evening. Called at 8 P. M., found the patient suffering with a return of pain. I then gave, at one time, grs. xx, which had the desired effect, and the patient slept till next morning, and has had no return of the paroxysms since.

CASE II.—Was a lady suffering from various nervous troubles, sleepless nights were frequent, and there seemed to be no longer any virtue in morphia I then determined to test the chloral hydrate; I administered grs. x. at 8 P. M., and left my patient immediately, feeling *perfect confidence* in the efficacy of this excellent remedy; the result was all that could be desired. My patient rested finely, and had a good night's sleep.

The next case was under the care of a professional brother; a middle aged man who had been suffering from neuralgia of the sciatic nerve for months. The doctor was giving his patient about 10 grs. of sulph. morphia, but it had ceased to control the pain, even when narcotism was produced. I sent the doctor some chloral hydrate, and advised him to give grains xv to xx. He gave him at night xv grs. and in half an hour he had the satisfaction of seeing his patient free from all pain, and in a quiet sleep, which lasted all night.

No nausea or any unpleasant effects were observed upon the administration of this, in *my opinion*, most valuable remedy. *My experience* appears in striking contrast to that of our friend Dr. SPENCER. *Why do doctors differ?*

Dalton, Ohio. J. M. PALMER, M. D.

The Progress of Medicine.

EDS. MED. AND SURG. REPORTER:

I feel very much like taking exceptions to a part of the article, (your own) on

"THE VALUE OF FIGURES"

(see REPORTER of June 4th, 1870, page 481), and take sides with Dr. Chas. Elam. I have not yet seen the Doctor's book, but if "he undertakes to prove, and asserts he does prove, that the practice of medicine of to-day is less efficient, performs fewer cures, and is less able to check disease, than it was thirty years ago," then with all due respect for your opinion—"But we don't believe it," I beg leave to differ with you. I do believe it; and in thus agreeing with Dr. Elam, I speak from observation, and an experience derived from a moderate practice of over thirty years. If (as you say) Cholera, Yellow Fever, and Relapsing Fever, (this last disease, perhaps another new name for an old disease), have

been stopped, then I answer, no special thanks to the Medical profession; but give all honor and praise to the philanthropist for the introduction of those sanitary measures, which progressive intelligence, advancing with the age, have brought into use, and worked out the great problem without the aid of a doctor's diploma.

New diseases and new remedies by the thousand, the invention of ambitious seekers of notoriety, and money-making schemes, have not, in my humble opinion, been of any benefit to the human race in the cure of disease; and with all their flummery, and much talk of advance in medical science, I would in all candor ask, whether cancer and consumption has yet found a cure? whether scarlet fever and kindred diseases, are now treated with more success, than twenty-five or thirty years ago? and whether dyspepsia, rheumatism, syphilis, insanity, etc., are not most woefully on the increase? Where then, I ask, has been the gain of medicine over disease within the past thirty years?

Pa., June 7, 1870. W. S. R., M. D.

News and Miscellany.

Cure for Obesity.

We find the following in the Editor's Scientific Record, in *Harpers Magazine for July*.

Mr. Schindler is the latest addition to the list of persons who have undertaken the treatment and cure of excessive fatness in the human race—this condition being considered by him as a disturbance of the animal economy, in consequence of which the carbon taken in is accumulated in the form of fat. Diet and exercise, as might be expected, constitute the basis of his treatment. As in the method of Mr. Banting, which some years ago was so much in vogue, the diet advised for fat persons consists of food containing a large percentage of nitrogen, to which some vegetables without starch, and cooked fruit, are to be added, for the purpose of moderating the excitation due to animal nourishment. This diet is to be varied, according as individuals are of a sanguine or lymphatic temperament. The use of certain wines is permitted; beer is, however, entirely forbidden. Coffee and tea are allowed with as little sugar as possible. Cheese, potatoes, rice, beans, peas, maise, maccaroni, tapioca, arrowroot, and soups are not allowed. The use of sulphate of soda is recommended, as moderating the transformation of nitrogenous materials and stimulating the oxidation of fat; and the use of mineral waters containing the sulphate of soda in solution, is considered of the greatest importance in this respect. The waters of Marienbad, which are especially rich in this salt, are stated to have, usually, the most happy effect. Their use, together with that of some alkaline pills, and a strict adherence to the conditions above mentioned, caused a decrease in weight of from twenty-five to sixty pounds in different individuals in the course of a few weeks.

The Effect of the Food of Cows in their Milk.

The Editor's Scientific Record, in *Harper's Magazine for July*, has the following:

It has lately been announced, as the result of careful and long-continued investigations, that the nature of the food given to cows does not produce the slightest effect upon the character or richness of their milk; the only difference being a greater or less percentage of water. The experiment was tried of feeding the same animals successively with hay alone; then, successively, with hay mixed with starch, oil, rape-seed, clover, etc., thus giving a greatly varying proportion of nitrogenized food, The milk was very carefully analyzed, after each change of food, without showing the slightest variation in its chemical constitution. The conclusion was, therefore, arrived at that the variation or improvement in the quality of the milk is to be accomplished rather by a careful regard to the breed than to the food supplied to the animal.

These remarks, of course, do not apply to the peculiar taste imparted to milk in consequence of the character of the food of the animal; since it is well known that the milk of cows which have fed upon garlic very soon furnishes evidences of that fact to the taste.

Singular Coincidences in a Double Marriage.

The following marriage notice appeared in *The Worcester* (Mass.) *Spy*, which certainly does not look much like the degeneration of American families, about which so much has been said: "In this city, May 26th, at the residence of the bride's father, Deacon Samuel Perry, by the Rev. E. Cutler, Harriet N., youngest daughter of a family of ten children—all of whom were present—to George L. Robbins, of this city. At the same time and place, and by the same, M. Jennie, youngest daughter, in a family of ten children, of Z. L. Robbins, of East Thompson, Conn.—all of whom were present—to Moses Perry, of this city.

New Test for Arsenic.

Bettendorf has found a test so delicate that one part of arsenic in 1,000,000 parts of solution may be detected, and the presence of antimony does not affect it. To apply this test the suspected liquid is mixed with hydrochloric acid until fumes are apparent. Chloride of tin is then added, and a basic precipitate containing the greater part of the arsenic as a metal mixed with the oxide of tin is thrown down.

——Dr. Lewis A. Sayre, of New York city, has recently sustained a law suit for malpractice. The plaintiff claimed $20,000 damages on account of his daughter, who had been operated on for hip disease. The case was submitted to referees, who declared the defendant entitled to judgment, which the court confirmed with an extra allowance of five per cent. on the amount claimed by plaintiff.

——The cable informs us of the death, on the 27th of June, of Professor James Syme, of Edinburgh, surgeon to her majesty in Scotland, at the age of seventy.

QUERIES AND REPLIES.

Kindly Words.

A correspondent, a prominent physician in a country district in this State, sends us the following kindly words:

"I have for the past eighteen months been a subscriber, and I think also a careful reader, of your journal, and as an able and faithful exponent of the present state of medical science, I do not hesitate to pronounce it superior to any other with which I am acquainted. Bold, fearless, and free in its opinions upon all subjects, yet fair and impartial in its conclusions, it possesses in a pre-eminent degree those qualities which have rendered it not only the most popular, but decidedly the best, medical journal published in America. To physicians, who like myself are practicing in the country, remote from large cities, and consequently deprived of hospital advantages and clinical instruction, it appears to be indispensable, especially if they wish to keep pace with the rapid progress made by the profession. I very seldom meet with a difficult or troublesome case, but that I am able to refer to one of a similar character, reported in the pages of your journal, and can thus bring to my aid the experience and recorded opinions of others.

"Of the COMPENDIUM I cannot speak from personal knowledge. If it equals the REPORTER in point of merit and ability you have accomplished an important and much needed work, and deserve, not only the thanks, but the undivided support of the entire profession of legitimate medicine."

Mother and Children.

"Iowa" claims the champion babies for a "light weight" mother. He says: "Was called, June 4th, to attend Mrs. M. O. in labor; found her suffering severe labor pains, which in fourteen hours effected the delivery of a pair of twins, a girl and a boy, each weighing seven pounds and fourteen ounces, making their combined weight fifteen pounds and twelve ounces—the mother in health, never weighing more than ninety-five pounds. Can you beat it East?"

EDS. REPORTER.—Please inform me what Pharmaceutical and Chemical journal you consider the best, where published, and the subscription price per year of same.

Louisiana. Yours, etc., P. F. H., M. D.

REPLY.—The *American Journal of Pharmacy* ($4.00), and the *Boston Journal of Chemistry* ($1.00), will suit you.

MARRIED.

BIGELOW—DURYEE—June 23d, at residence of the bride's parents, by Rev. Dr. Duryee, assisted by Rev. Dr. Eddy, James Bigelow, M. D., and Minnie E., daughter of Peter Duryee, all of Brooklyn.

DICKEY—MALLORY—At Hamilton, Ohio, June 8th, at the residence of the bride's father, by Rev. Thos. S. Bacon, Mr. Adam Dickey, of Middletown, Ohio, and Miss Josephine Mallory, daughter of Dr. H. Mallory, of Hamilton.

GREENLEAF—STONE—June 21, at Trinity Chapel, New York, by the Rev. C. E. Swope, Dr. Richard C. Greenleaf, of Boston, and Adeline Emma Stone, of New York.

GROVER—COOKE—June 9th, 1870, by the Rev. J. C. Irwin, at the residence of the bride's father, Greensburg, Indiana, Major M. Grover, and Miss Annie E. Cooke, daughter of Dr. S. Cooke.

HAVEN—MASON.—In this city, June 15, at St. Luke's Church, by the Rev. G. Emlen Hare, John Haven, of Fort Washington, New York, and Lydia, only daughter of Dr. John K. Mason.

LAWSON—MCFADDEN—June 2d, by the Rev. A. F. Morrison, Dr. L. S. Lawson, of Dallastown, York county, Pa., and Miss Maggie A. McFadden, of Chanceford, York county.

PHILLIPS—CHESSROWN.—June 14, 1870, at the residence of the bride's father, Mr. John Phillips, Carson street, Birmingham, Pa., by the Rev. J. H. Egar, Rector St. Peter's, Miss Sadie J. Phillips and A. V. Chessrown, M. D., both of Birmingham.

SEWARD—KIMBER.—June, at the residence of the bride's mother, Philadelphia, by the Rev. S. S. Seward, Dr. John L. Seward, of South Orange, N. J., and Lidie A. Kimber, of the former place.

WALLACE—WALKER—In Thomaston, Maine, June 8, by Rev. B. S. Arey, assisted by Rev. Mr. Mason, Capt. George E. Wallace, and Miss Marietta B. Walker, daughter of J. B. Walker, all of Thomaston.

WALTON—YOUNG—June 16th, at the residence of the bride's mother, No. 301 Penn street, Pittsburg, by the Rev. J. H. Young, Geo. E. Walton, M. D., of Cincinnati, and Marion, daughter of the late William Young, Esq.

DIED.

COLBERT.—At Oil City, Pa., May 30, Maria Agnes, infant daughter of Dr. R. and Emma M. Colbert, aged 7 months.

GRAY.—On Thursday, 16th inst., Dr. W. D. Gray, aged 28 years.

HUNT.—At Clarksville, Hunterdon Co., N. J., June 13th, Vincent, son of Dr. Thomas E. and Cynthia M. Hunt, aged 6 years, 4 months and 4 days.

JOHNSON.—On June 22d, at his residence in Germantown, William N. Johnson, M. D.

SMALL.—In this city, June 21st, Juliet, wife of Dr. Edward P. Small, and youngest daughter of David Smith.

WHEELOCK.—In New York, June 21st, Madge R., wife of Dr. George G. Wheelock, and daughter of the late Archibald Robertson, Esq., of Philadelphia.

METEOROLOGY.

JUNE.	6,	7,	8,	9,	10,	11,	12.
Wind.....	E.	N. E.	S. E.	S. E.	N. E.	N. E.	S.
Weather.	Cl'dy Sho'r	Cl'dy Sho'r	Cl'dy	Cl'dy Sho'r	Cl'dy Rain.	Cl'dy Rain.	Clear
Depth Rain		1-10			1 7-10	3-10	
Thermom....							
Minimum..	63°	62°	64°	65°	60°	58°	54°
At 8, A M.	68	67	71	71	62	68	65
At 12, M...	74	74	80	80	66	72	77
At 3, P. M.	75	75	82	80	67	78	80
Mean.....	70.	69.50	74.25	74.	63.75	69.	69.
Barometer..							
At 12, M...	30.1	30.1	30.1	30.1	30.	30.	30.2

Germantown, Pa. B. J. LEEDOM.